

TRAM 644E



TRACTOR, RUBBER
TIRED,ARTICULATED, STEERING
MULTIPURPOSE

Terminal Learning Objective

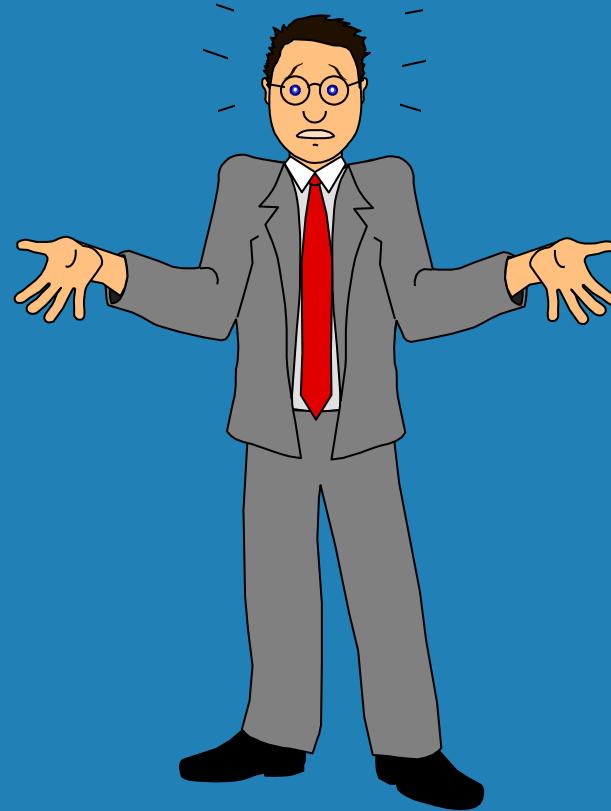
- A. Provided a Tractor, Rubber tired, Articulated steering, Multipurpose, 644E (TRAM) and a training area, with the aid of references, operate the tractor in support of engineer operations in accordance with TM-09148A-14/4.
- B. Provided a Tractor Rubber tired, Articulated steering, Multipurpose, 644E (TRAM), attachments and necessary tool, with the aid of references, install each attachment in accordance with TM-09148A-14/4.

Enabling Learning Objectives

- A. Given descriptions of Tractor, Rubber tired, Articulated steering, Multipurpose, 644E (TRAM) characteristics, without the aid of references, mark each description in accordance with TM-09148A-14/4.
- B. Provided a Tractor, Rubber tired, Articulated steering, Multipurpose, 644E (TRAM) equipped with forks attachment, a simulated haul unit, and pallets, with the aid of references, load/unload the pallets onto/off of the haul unit in accordance with TM-09148A-14/4 and TM5-331B.
- C. Provided a Tractor, Rubber tired, Articulated steering, Multipurpose, 644E (TRAM) and attachments, without the aid of references, change attachments in accordance with TM-09148A14/4.

D. Provided a Tractor, Rubber tired, Articulated steering, Multipurpose, 644E (TRAM) and necessary tools, with the aid of references, perform before operation checks in accordance with TM-09148A-14/4.

E. Provided a Tractor, Rubber tired, Articulated steering, Multipurpose. 644E (TRAM) and necessary tools, with the aid of references, perform after operation checks in accordance with TM-09148A-14/4.

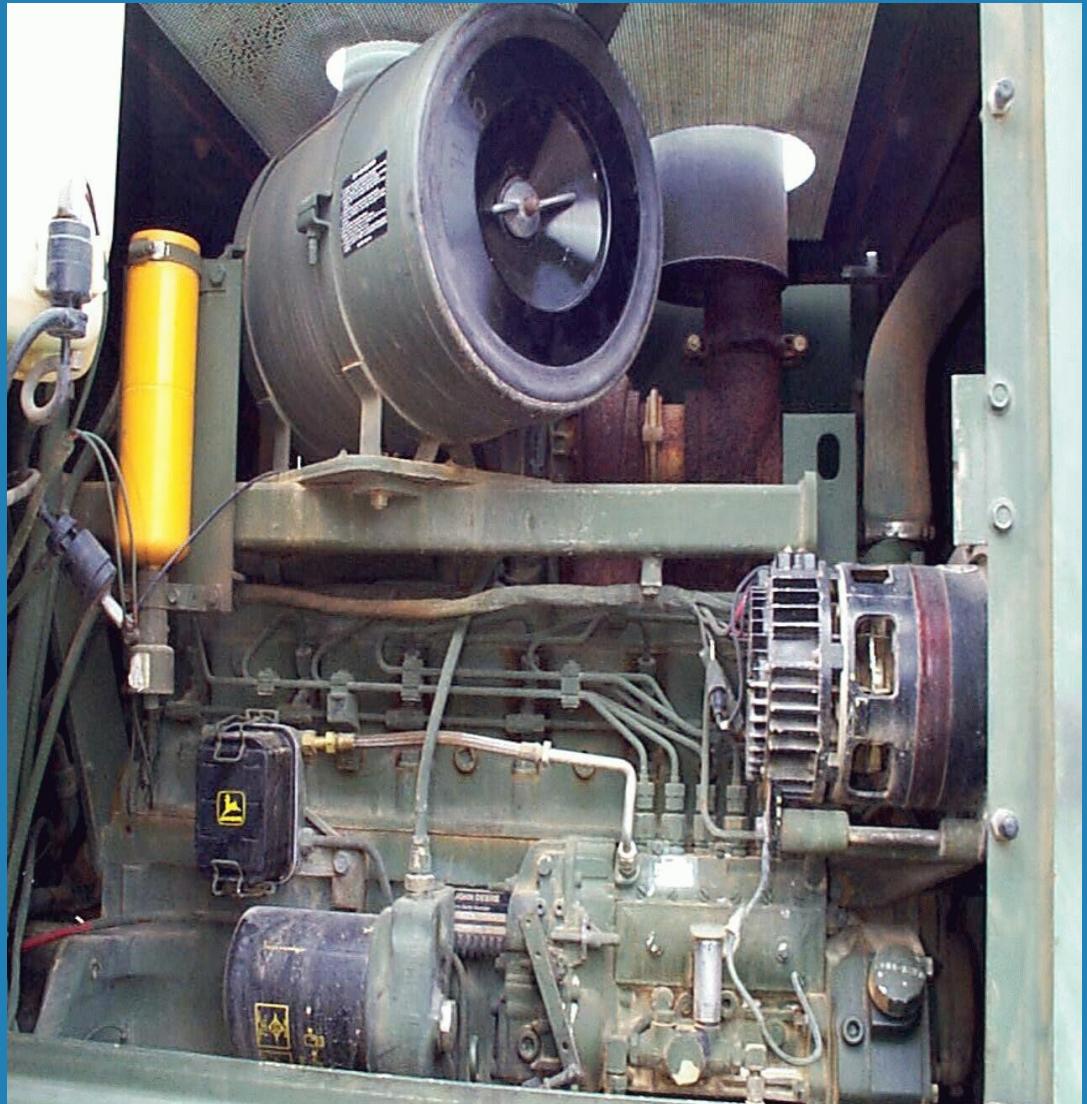


TRAM 644 E

- A. Fully hydraulic, rough terrain forklift/loader manufactured by John Deere
- B. Largest forklift in the Marine Corps, with a gross vehicle weight of 35,790lbs

C. ENGINE

**Powered by a John
Deere 6076
Six cylinder
Turbocharged
diesel engine
Max HP of 185 at
2200 Rpm's**



D. TRANSMISSION

omatic transmission with 4 speeds forward and 3 in rev

1. Transmission speed is selected manually by the operator.
2. The maximum forward speed is 23.8.
3. The maximum reverse speed is 15.3.





E. Full-time four wheel drive, equipped with a front axle differential lock.

1. Can negotiate a maximum grade of 45%.
2. Maximum fording depth of 60 inches, and is equipped with an electric fan-disengage.

F. The front axle is rigid mounted.

G. Equipped with an oscillating rear axle.
Rear axle can oscillate 26 degrees.



2. The maximum ground clearance is 16.2 inches



H. The TRAM can be equipped with either a forklift or a 4-in-1 hydraulically controlled 2 1/2 cubic yard, multi-purpose bucket attachment, and has a pintle hook mounted on the rear of the tractor for towing.

1. The fork attachments is electrically as well as hydraulically operated. Maximum lifting capacity of 10,000



B. Maximum lifting height of 1



C. Maximum side shift 12 inches from center.



D. Maximum spread 6 feet 4 in



Minimum spread of 18 inches



E. Forward tilt of 50 degrees



Rear tilt of 40 degrees



F. Forks oscillate 6.5 degrees left or right



2. The TRAM with bucket
a. Maximum capacity of 7500 lbs



B. 4-in-1 bucket operations dozing



scraping



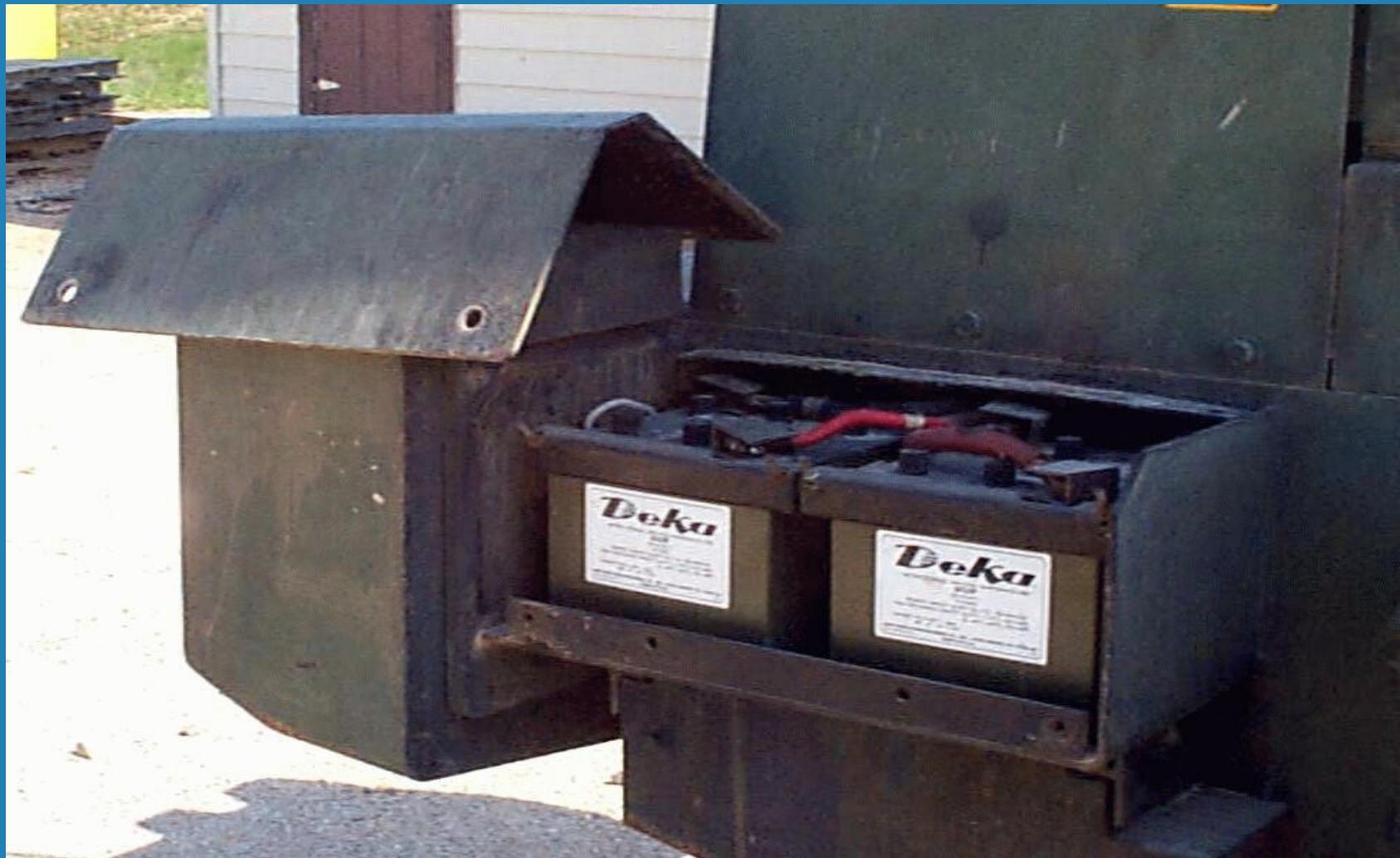
bucket



clamshell



J. 24-volt negative ground electrical system



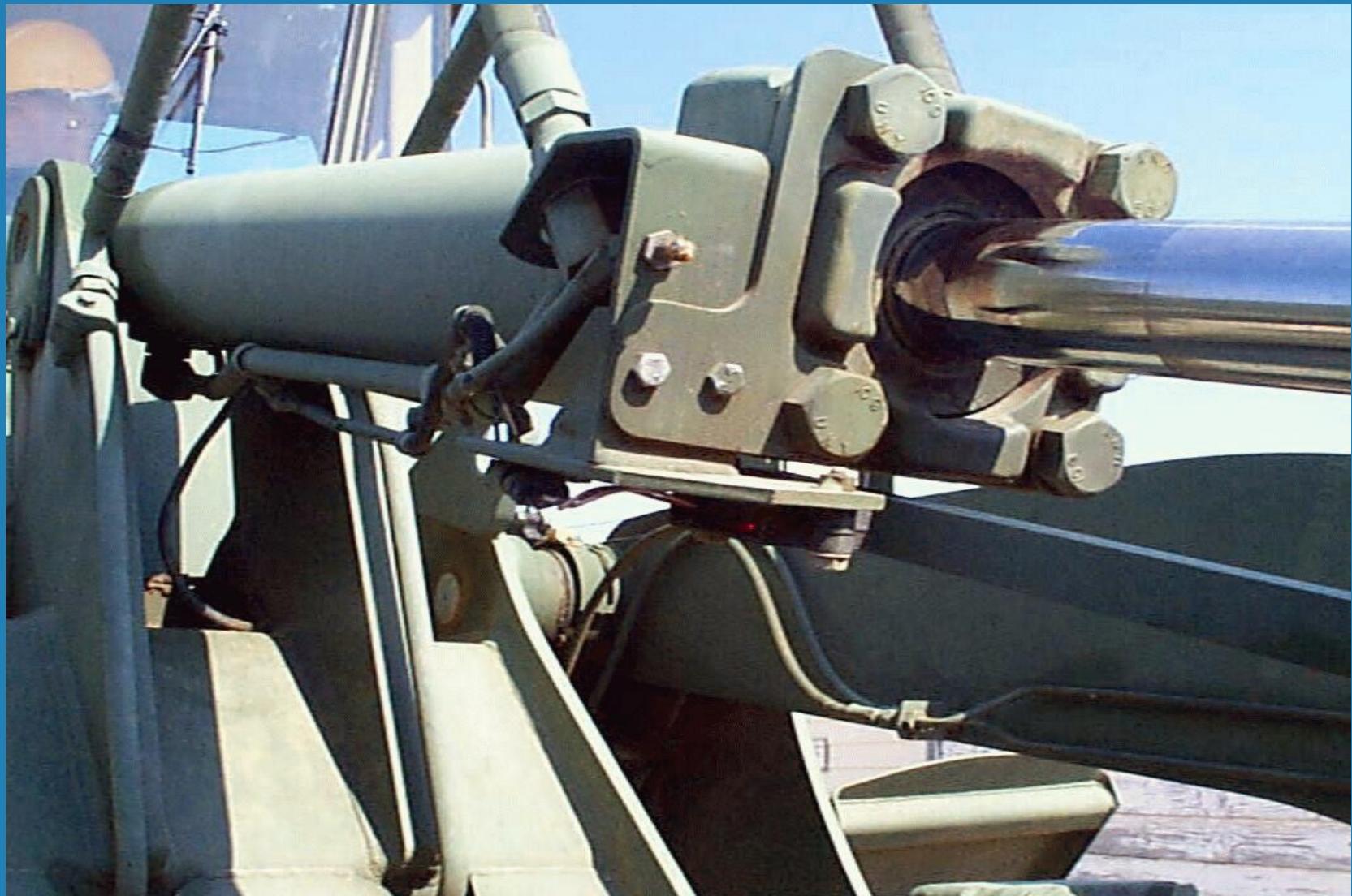
K. Articulated steering turns 40 degrees left or right of center



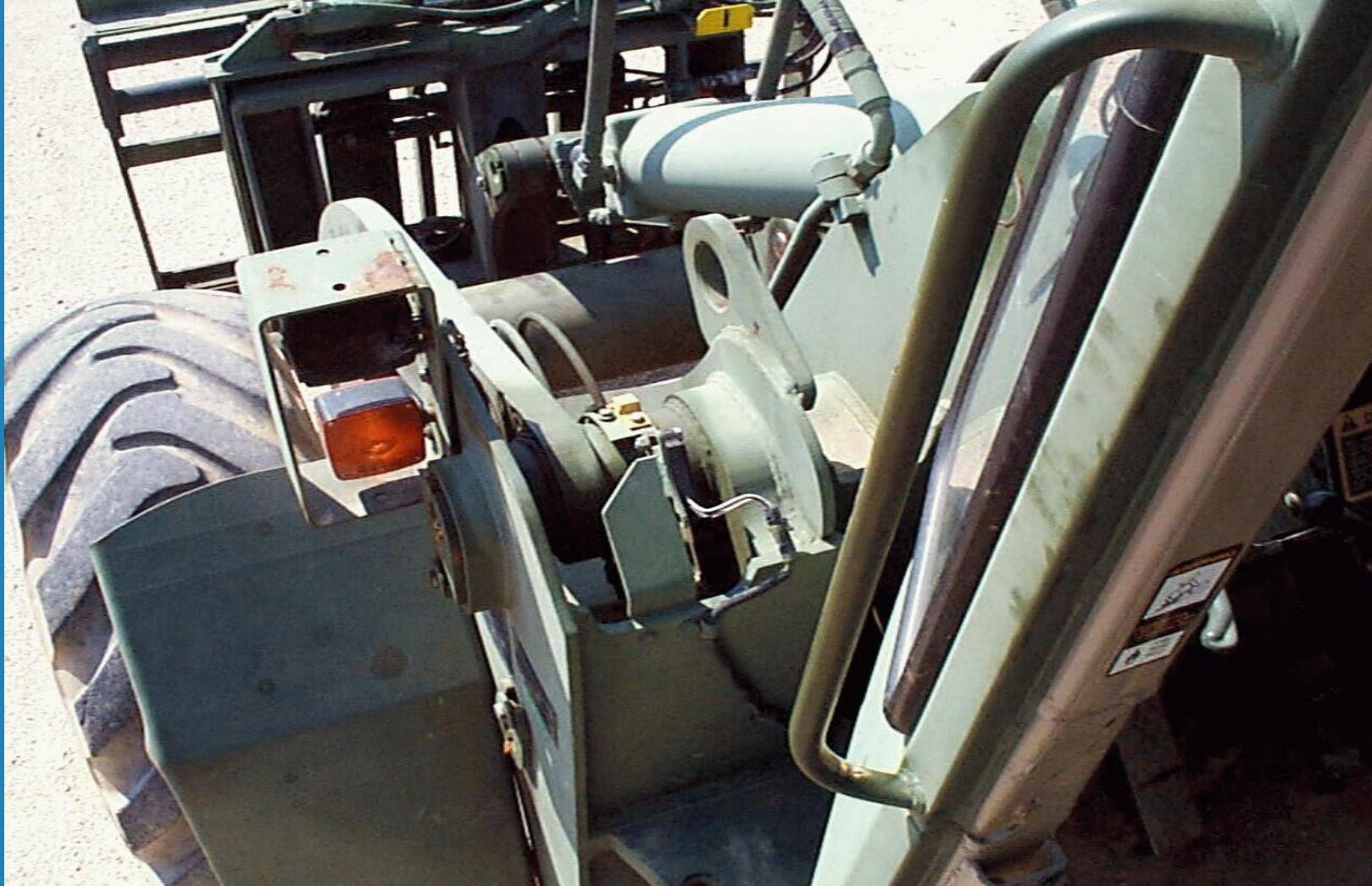
L. Frame locking bar for transporting or maintenance



i. Automatic leveling/return to d



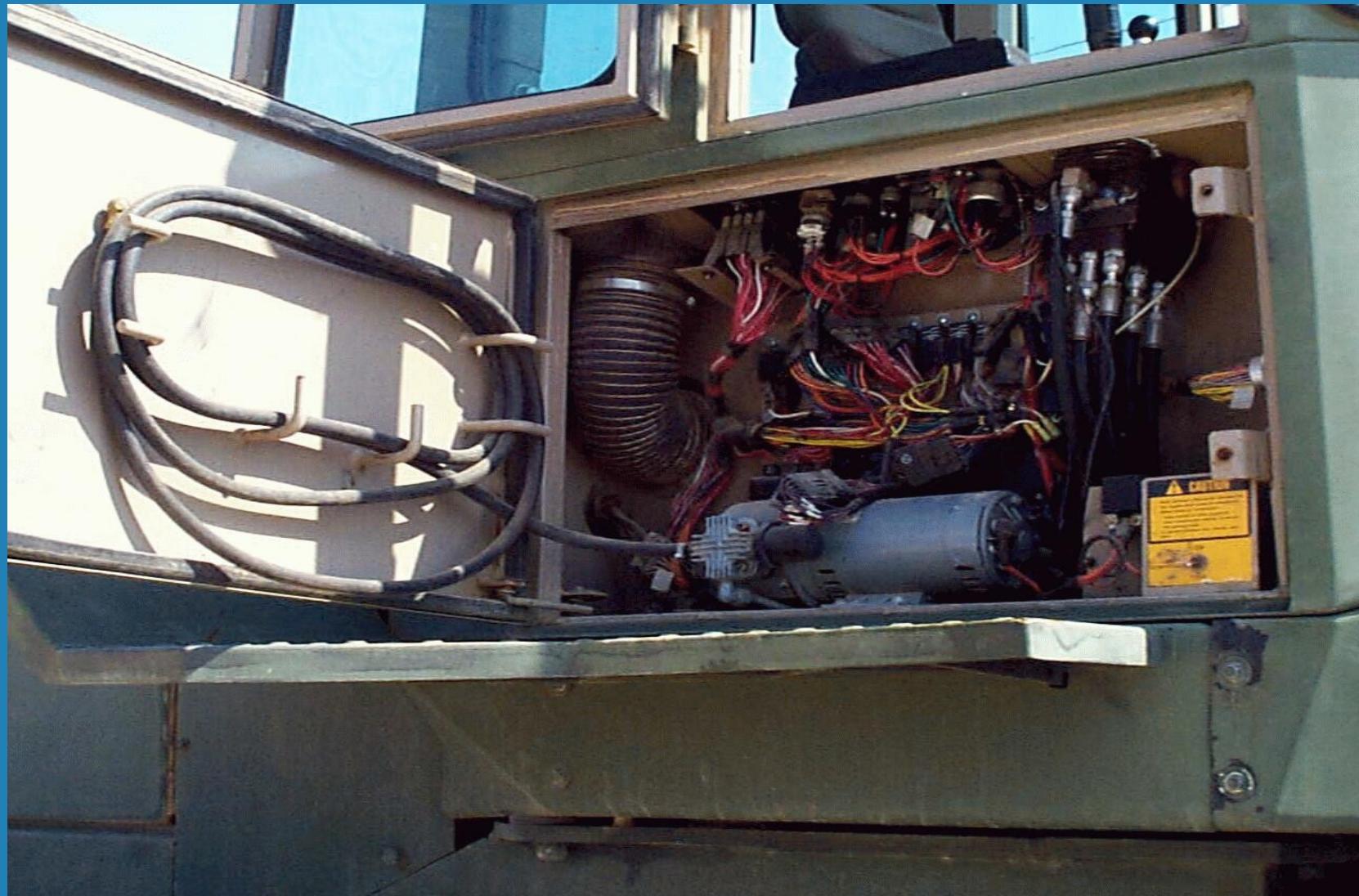
Automatic boom height kickout device



J. Roll Over Protective Structure



O. Electric air compressor



P. Four wheel
power actuated
brake system

MISSION

1. To load and unload palletized cargo from trucks, aircraft and ships
2. To load haul units, perform dozing, scraping and clamshell operations.

Instruments and controls



Right Control Panel



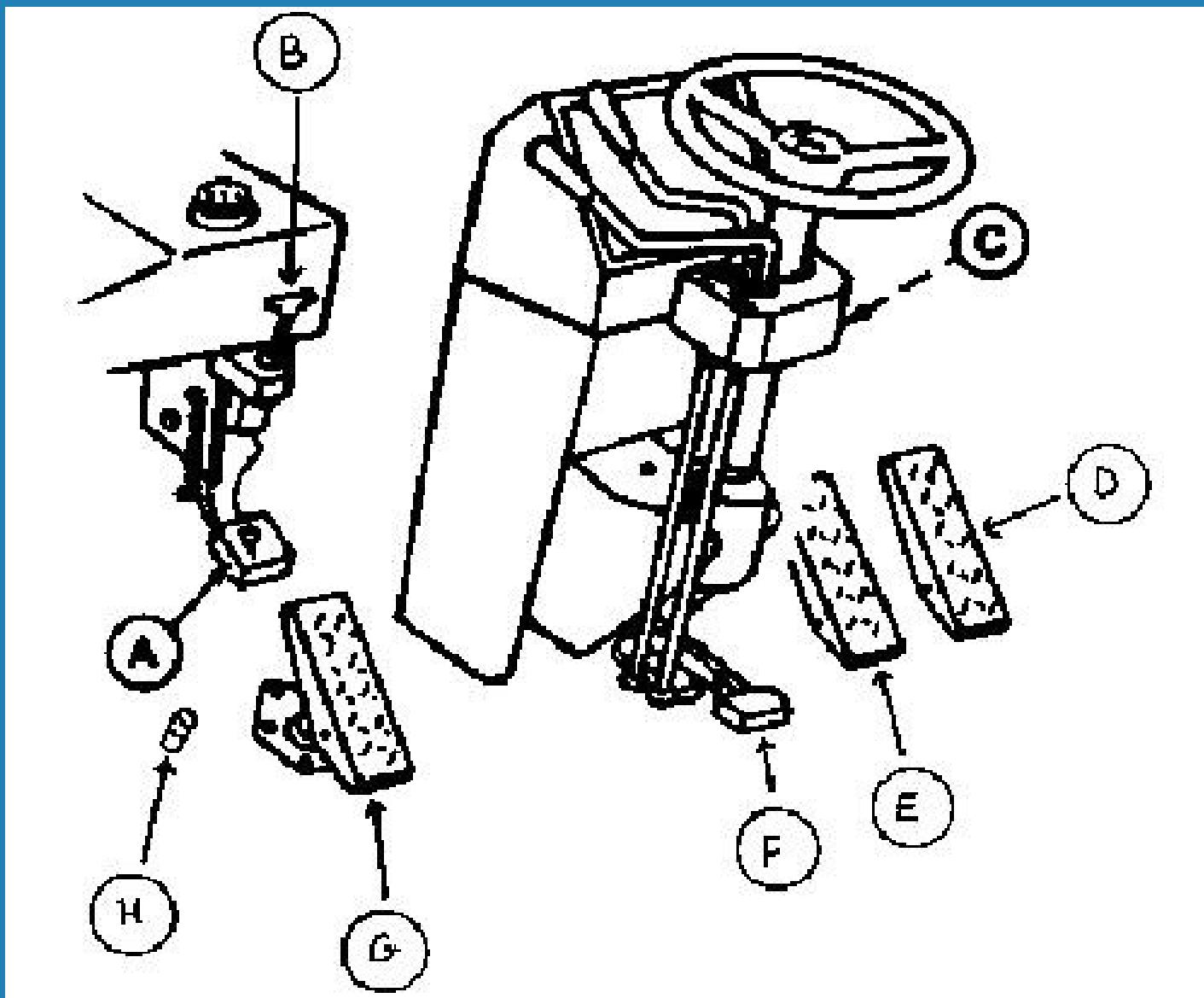
Transmission Control Levers



Neutral Safety Lock



Pedal Control



Differential Lock Switch



Forklift Controls



General Starting Procedures

- Check instruments before starting
- Fasten seat belts
- Move direction lever to neutral Engage Neutral
- Engage Parking Brake
- Push fuel shut off in
- Hold accelerator pedal down to one third
- Turn master switch on
- Turn start switch to start
- Operate at idle 3 to 5 minutes until engine warms up

Cold Weather Start Procedures

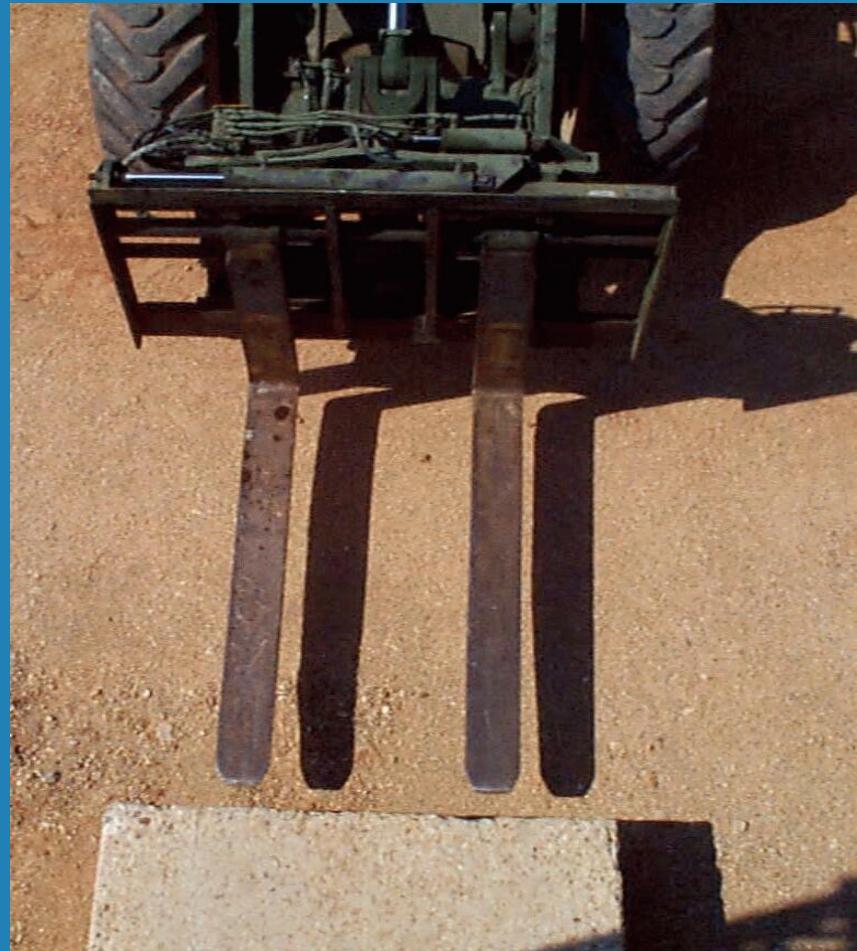
- Turn start switch to start position
- Press cold start button for 3 seconds
- Release cold start button
- Used in 30 degree temperatures

General Stopping Procedures

- Park TRAM on level surface
- Lower attachments on deck
- Place selector lever in neutral
- Engage park brake
- Idle engine for two minutes to avoid damage to
~~-Turn off generator~~
- Turn master switch OFF

Employment

a. Insure forklift is square to load



b. use side shift as needed



carry load against fork carriage



c. use oscillation when loads at an angle



e. tilt forks back when carrying stable loads



carry the load 12-18 inches off de



g. carry wide loads
centered on the forks



h. haul bulky loads in



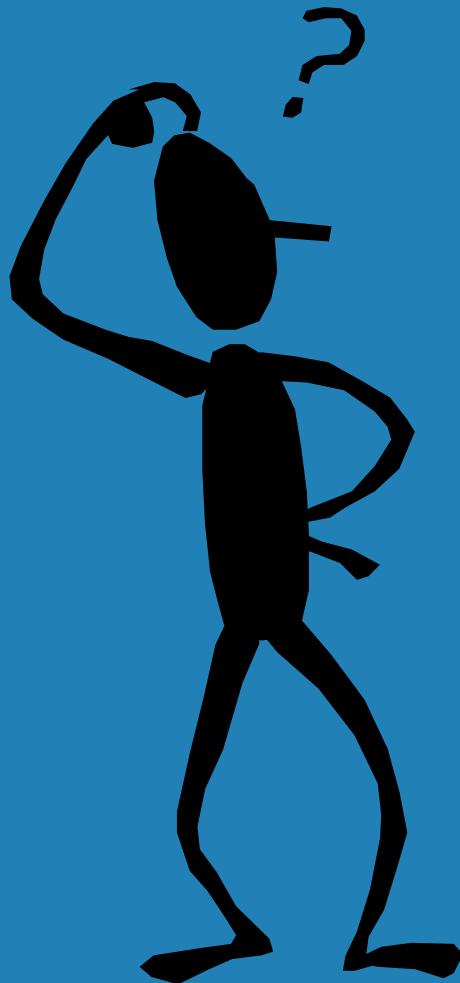
i. to haul loads up/down steep
grades tilt back travel in



IMPORTANT

- NEVER exceed the rated capacity of the forklift.
- NEVER add extra counter weight
- NEVER add fork extensions.

Questions



TRAM 644E



Changing Attachments

Removing

the

attachment

A. Bring attachment to carry height

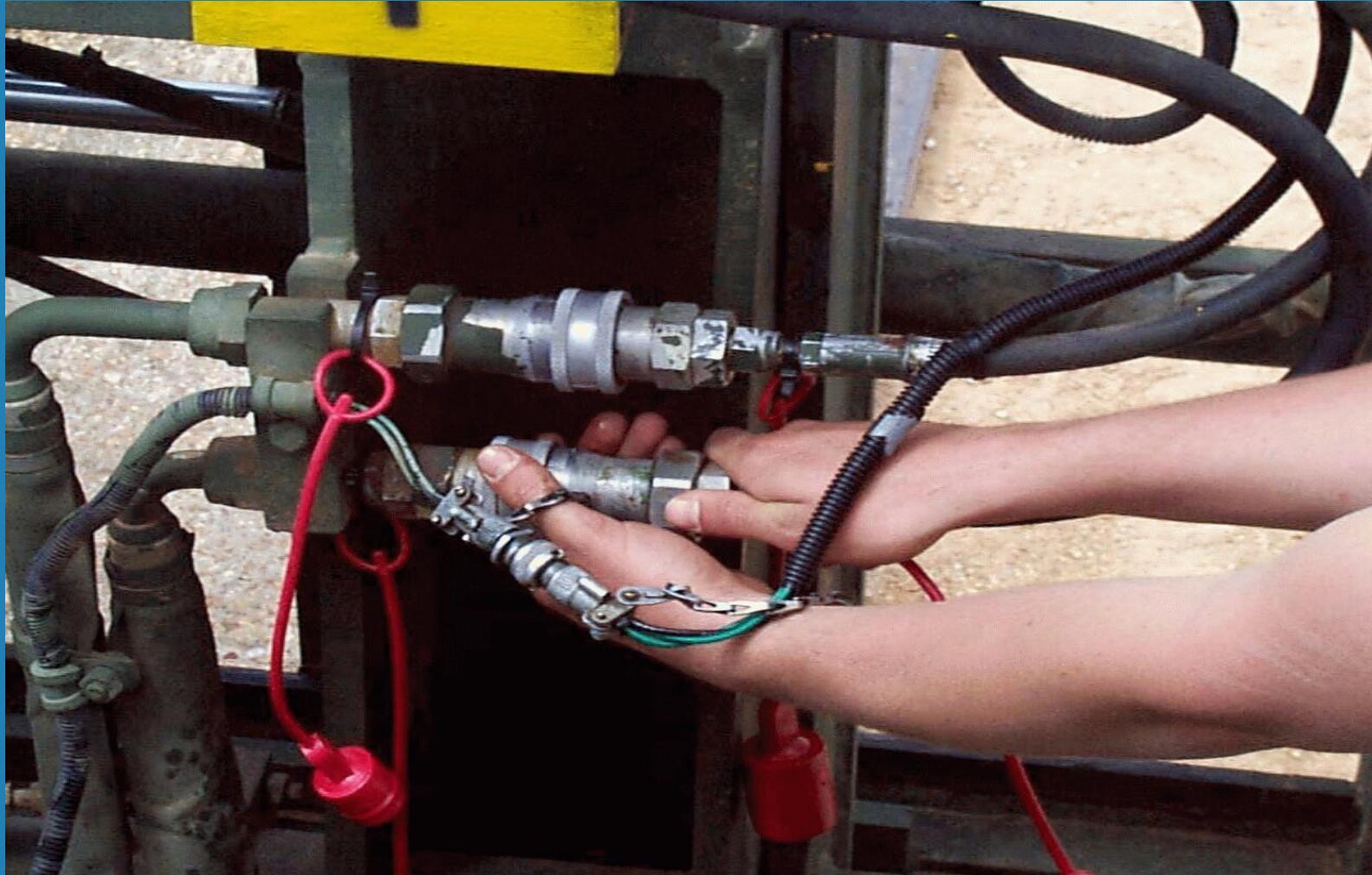


B. Shut off engine

c. Press boom down switch, operate the auxiliary control lever back and forth.



d. Disconnect hydraulic hoses.



e. Disconnect electric connector.

f. Properly block attachment.

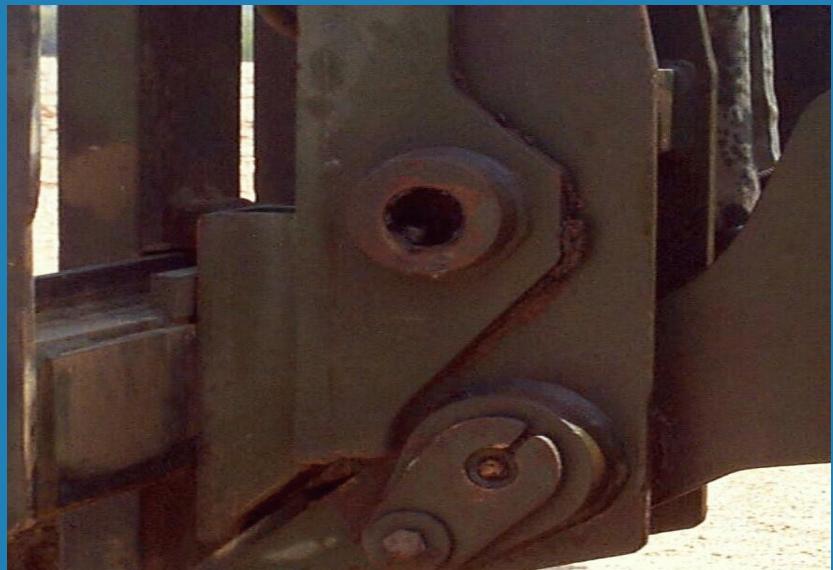


g. Start engine.

Raise boom slightly until attachment is off the ground



i. Depress the pin retraction switch.



Lower attachment to
the ground

j. Slowly back away from attachment.



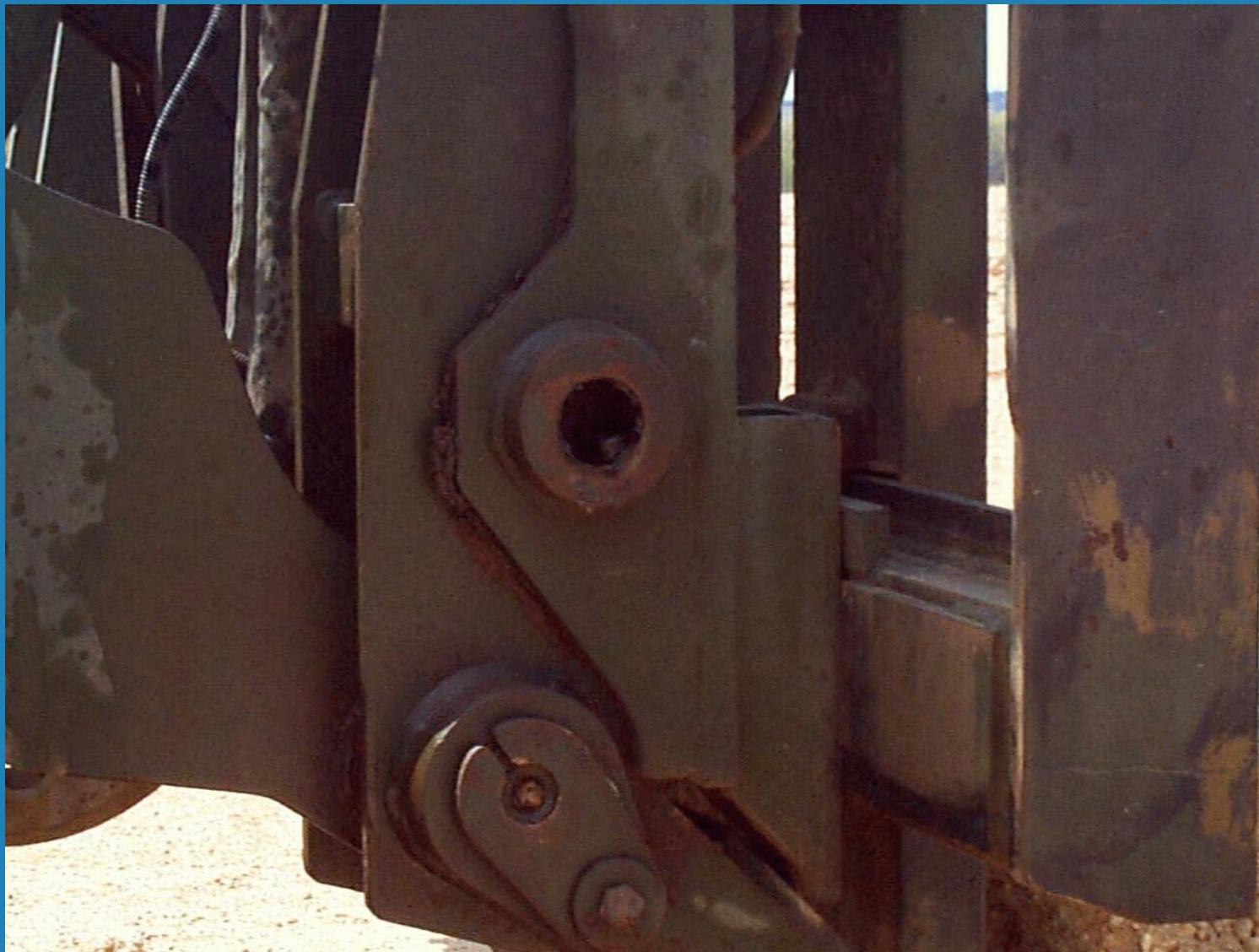
TRAM 644E

Installing Attachments

a. Pull forward to attachment.



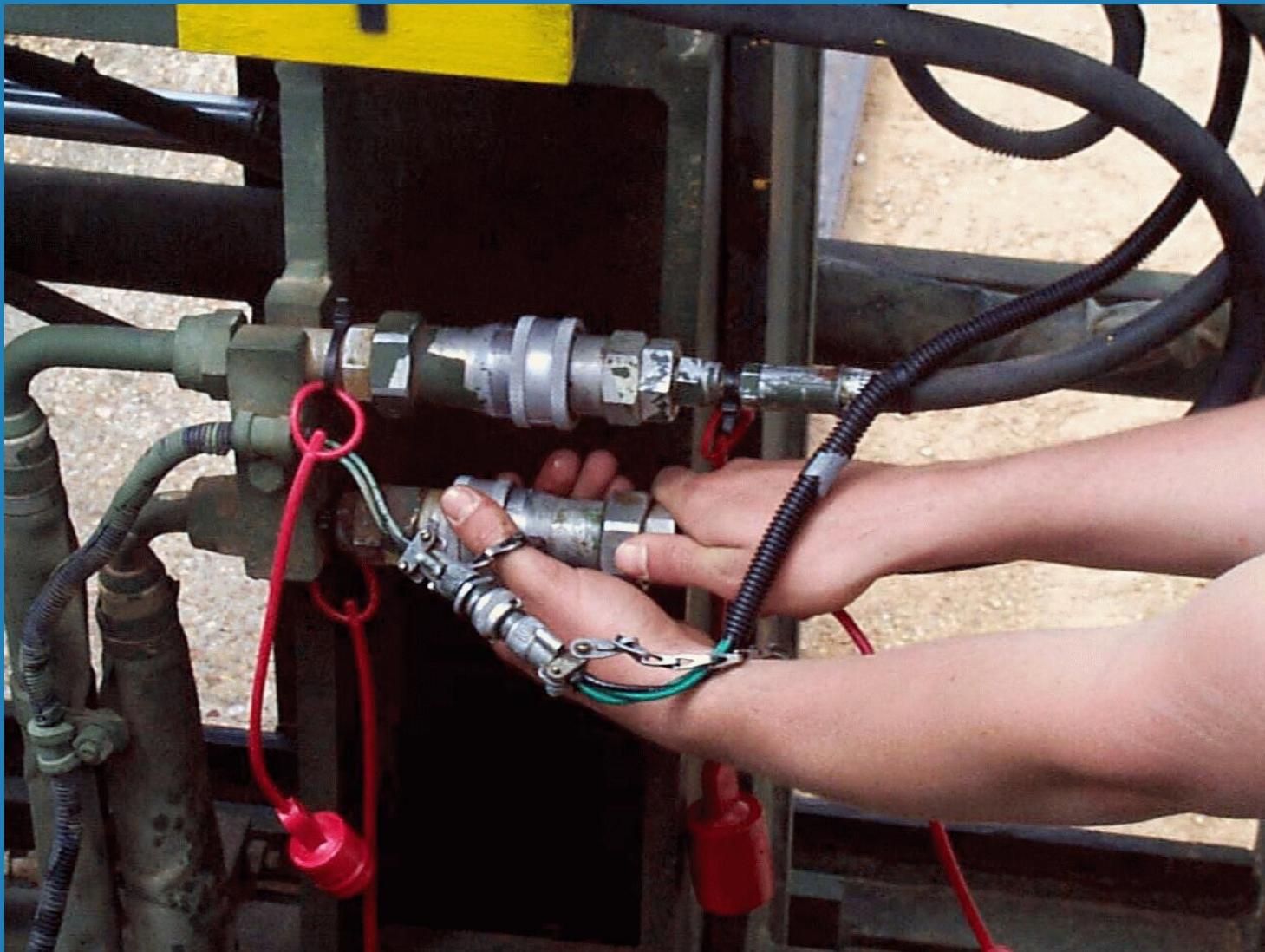
ress the pin retraction switch while raising the bo



release pin retraction switch and allow pins to engage

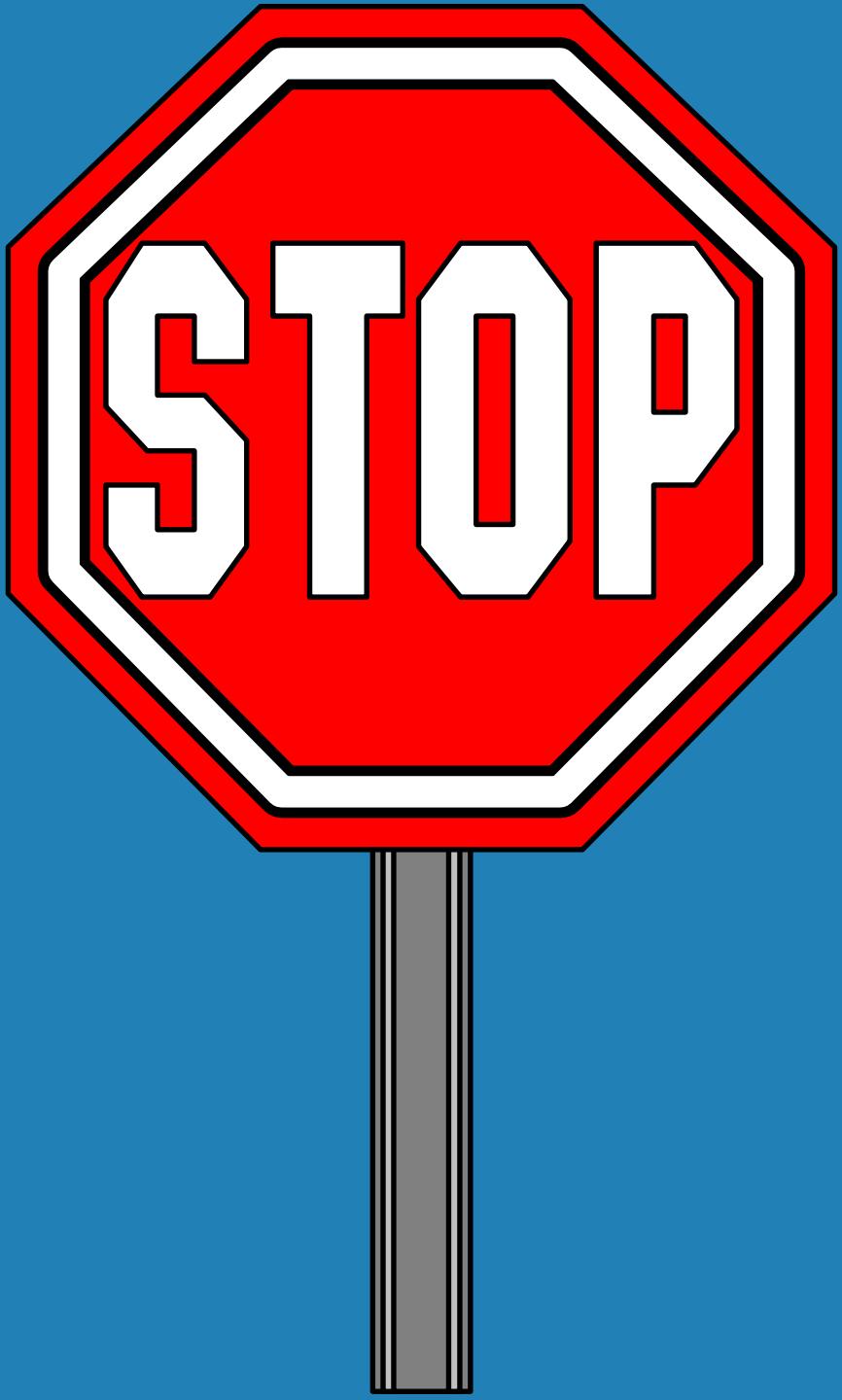


d. Connect hydraulic hoses and electrical wire.



e. Perform functions checks.

Any
Questions



Pit Rules

Safety is paramount. Everybody is a Safety NCO
Seatbelts, helmets and hearing protection will be required
First gear only on the lot
No rings, watches or dog tags
No running or horse play will be tolerated
360 Walk around getting on and off the equipment
No tobacco products except in designated areas